

Table 3 Rates of reductive PP sequences, measured by NADH oxidation, in reactions catalysed by spinach SEP with a variety of sugar phosphates as substrates

Substrate	Concentration (mM)	Rate of NADH oxidation ($\mu\text{mol h}^{-1} \text{mg}^{-1} \text{Chl}$)	
		Spinach ^a	Pea ^b
Ru 1,5-P ₂	2.0	592 ± 79 (9)	546
Rib 5-P	2.0	743 ± 92 (10)	453
Rib 5-P	0.2	366 ± 39 (10)	–
Seh 7-P	2.0	183 ± 32 (12)	184
Seh 1,7-P ₂	2.0	76 ± 14 (10)	112
Fru 1,6-P ₂	2.0	10.1 ± 2.7 (10)	74.1
Fru 1,6-P ₂	1.0	18.2 ± 2.9 (11)	–
Fru 6-P	2.0	1.0 ^c ± 0.3 (13)	77.6
Fru 6-P + DHAP	2.0/0.20	1.8 ± 0.4 (10)	142
Fru 6-P + PGA	2.0/0.20	2.9 ± 0.4 (8)	–
DHAP	2.0	13.1 ± 3.1 (10)	53
DHAP	0.20	5.0 ± 1.4 (11)	22.6
Ara 5-P	2.0	1.1 (9) ^d	–
D-g-D-i-oct 1,8-P ₂	2.0	3.7 ± 1.7 (5)	–
D-g-D-a-oct 1,8-P ₂	2.0	9.3 ± 1.5 (6)	–
D-g-D-i-oct 8-P	2.0	6.3 ± 2.4 (5)	–
D-g-D-a-oct 8-P	2.0	8.2 ± 3.0 (5)	–

^a Shows the results of this study. Results are mean values ± standard deviation. The number of determinations using different batches of SEP are shown in brackets

^b Shows the data of Furbank and Lilley (1981) for peas

^c When preparations were made using sonicated spinach chloroplast suspensions and Fru 6-P as substrate, varying (non-reproducible) rates up to 5 $\mu\text{mol h}^{-1} \text{mg}^{-1} \text{Chl}$ were recorded

^d Results were variable with different SEP batches, three of the SEP preparations with Ara 5-P did not support any NADH oxidation